

AUSTRALIA

Study of Australian Fire Engines & Fire Equipment July 13 – 26, 2003

Mr. Robert Stroud, Supervisory, Equipment Development Unit, Mr. Carl Dorsey, Special Projects Manager, Equipment Development Unit, and Mr. Bob Bahr, Assistant Fire Management Officer, Lewistown Field Office, Lewistown, Montana, participated in BLM's first exchange with Australia during July 2003.

The purpose of their trip was to examine the Australian Fire Equipment Program and see if any equipment, technologies, manufacturing procedures or new developments in the fire suppression and prescribed fire areas might be applicable to the BLM. They visited Sydney, NSW, Canberra, the capital city of Australia (which was devastated by wildfires in early 2003) Melbourne, VIC and the Grampians National Park air tanker base.

The group felt that although the countries are thousands of miles apart, having different cultures and histories they have developed fire programs that have more similarities and parallels than differences.

They had the following thoughts and recommendations regarding their trip:

One of the many things that immediately stood out was that Australia uses thousands of volunteer firefighters to help suppress wildland fires. Therefore, nearly all of their equipment has been standardized over the years and kept very simple to operate, which also makes it easier to train personnel on their equipment.

New South Wales (NSW) has adopted the $\frac{1}{4}$ turn fittings so the confusion on thread size and types is eliminated. Victoria is still using threaded fittings with the argument that $\frac{1}{4}$ turns can fill with dirt and debris making it hard to connect and archive a complete water tight seal.



$\frac{1}{4}$
turn
fitting

The federal agencies here in the U.S. have been impressed with the $\frac{1}{4}$ turn fittings, however, the costs of converting from threaded fittings to $\frac{1}{4}$ turn was prohibitive.

Another item of interest was the Roo catchers, which are on virtually all trucks in Australia. Because of all of the kangaroos hopping around the out-back, these keep the front end damage to a minimum.

While here in the U.S. our water-tenders have front brush guards which are used for brush and small tree while driving off-road. In the U.S. but in Australia have been replaced



While on the trip the group saw many other innovative pieces of equipment, some of which were being field tested while others were already in service.

One of the simplest innovations is the fuel tag system developed by the Victoria Natural Resources and Environment Equipment personnel.



These tags allow for fast and reliable labeling of fuel containers. They are made of plastic, and the different colors indicate the contents, for example:

Yellow – 2-cycle fuel

White - Unleaded gas

Since returning from Australia the Equipment Development group has ordered some samples of the tags and sent them out to some field offices to be tested. The goal is to eventually have these tags used Bureau-wide. These tags could also be handy in your garage.

Another piece of equipment that was of special interest was the pressurized Heli-Torch. The system has been designed to be more aerodynamic than that being used in the U.S. It can be used with shorter lines which give the pilot more control over the unit while flying. Because of the increased control the pilot is able to keep the fire where he wants it and if he accidentally swings the torch across the fire line he can extinguish the flame with an inert gas carried on the unit.



The equipment development shop is currently reviewing the feasibility of adapting this system to the ground firing apparatus. If this proves successful, it will then be review for U.S. aerial applications.

The Australians have developed a vehicle spray protection system for their Wildland fire engines. This system consists of spray nozzles in the plumbing system for the tires and cab with a dedicated water supply. The system is controlled from the cab. The cab spray portion is undergoing continued testing for the proper size of nozzles and location on the engine to provide the optimum protection in the event of a burn-over. At this time the BLM is looking at adapting the tire spray portion of the system to it's Wildland engines.

These are a few of the many ideas that they saw. All of the potentially good ideas were submitted to BLM's Equipment Development Committee, in October 2003. This committee consists of representatives from the OF&A and one representative from each BLM state office. Many of the ideas were enthusiastically accepted by the committee, while others required more study.

At the conclusion of the trip the entire group agreed that the trip was well worth it, and improvements could be made. They also felt that other wildland fire programs could gain useful knowledge by entering into an exchange, such as the aviation program and dispatch center operating plans.